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CLAIMS:

1. An electrophoretic display panel (1), comprising:
- an electrophoretic medium (5) comprising charged particles (6);
 - a plurality of picture elements (2);
 - electrodes (3,4) associated with each picture element (2) for receiving a potential
- 5 difference; and
- drive means (100),
- the drive means (100) being arranged for controlling the potential difference of each picture element (2)
- to be a grey scale potential difference for enabling the particles (6) to occupy the
- 10 position corresponding to the image information,
- wherein the drive means (100) are further arranged for application of the grey scale potential difference for at least a subset of all drive waveforms for setting a picture element from a preceding optical state to a grey scale in two or more pulses which change the optical state of the system separated by a non-zero time interval.
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2. An electrophoretic display panel as claimed in claim 1, wherein the drive means are arranged for, during the non-zero time interval, applying a voltage value below a threshold voltage value below which the particle(s) remain substantially in their position.
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3. An electrophoretic display panel as claimed in claim 1, where wherein the drive means are arranged for, during the non-zero time interval, applying a voltage value of substantially zero.
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4. An electrophoretic display panel (1) as claimed in claim 1, wherein the drive means (100) are arranged for controlling the potential difference of each picture element (2) to be a reset potential difference having a reset value and a reset duration for enabling particles (6) to substantially occupy one of the extreme optical positions.

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- 5 An electrophoretic display panel as claimed in claim 1 or 4, wherein the drive means are further arranged for application of the grey scale potential difference over more than two pulses.
- 5 6. An electrophoretic display panel as claimed in claim 1 or 4, wherein the drive means (100) are further arranged for application of the grey scale potential difference in two pulses.
- 10 7. An electrophoretic display panel as claimed in claim 1 or 4, wherein the drive means are arranged for application of the grey scale potential difference in two or more pulses wherein the applied pulses have decreasing time duration as the driving time increases.
- 15 8. An electrophoretic display panel as claimed in claim 1 or 4, wherein the drive means are arranged for application of the grey scale potential difference in two or more pulses wherein the applied pulses have decreasing amplitude as the driving time increases.
- 20 9. An electrophoretic display panel as claimed in claim 1 or 4, wherein the drive means are arranged for application of the grey scale potential difference in more than two pulses, the pulses are separated by at least two non-zero time intervals, and the time intervals increase as the driving time increases
- 25 10. An electrophoretic display panel as claimed in claim 1 or 4, wherein the drive means are further arranged to control for each picture element the potential difference to be a sequence of preset potential differences before being the grey scale potential difference, the sequence of preset potential differences having preset values and associated preset durations, the preset values in the sequence alternating in sign, each preset potential difference representing a preset energy sufficient to release particles present in one of said extreme positions from their position but insufficient to enable said particles to reach the other one of the extreme positions.
- 30 11. A method for driving an electrophoretic display device comprising:
- an electrophoretic medium (5) comprising charged particles (6);
 - a plurality of picture elements (2), in which method grey scale potential differences for setting a picture element to an optical state from a preceding optical state are

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applied for at least a subset of all drive waveforms in two or more pulses separated by a non-zero time interval.

12. A method as claimed in claim 11, wherein prior to application of the grey scale potential difference reset potential differences are applied for bringing the picture element to an extreme optical position.
13. A method as claimed in claim 11 or 12, wherein the grey scale potential difference for setting a picture element to an optical state from a preceding optical state is applied in more than two pulses.
14. A method as claimed in claim 11 or 12, wherein the grey scale potential difference for setting a picture element to an optical state from a preceding optical state is applied in two pulses.
15. A method as claimed in claim 11 or 12, wherein the time periods between the grey scale pulses increase with increasing drive time
16. A method as claimed in claim 11 or 12, wherein the pulse length of the grey scale pulse decreases with increasing drive time.
17. Computer program comprising program code means for performing a method in accordance with a method as claimed in any of the claims 11 to 16 when said program is run on a computer.
18. Computer program product comprising program code means stored on a computer readable medium for performing a method as claimed in any of the claims 11 to 16 when said program is run on a computer.
19. Computer program product comprising program code means for use in display panel as claimed in any of the claims 1 to 10, for performing the action specific for said claims.

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20. Drive means (100) for driving an electrophoretic display panel (1), said display panel (1), comprising:

- an electrophoretic medium (5) comprising charged particles (6);
- a plurality of picture elements (2);
- 5 - electrodes (3,4) associated with each picture element (2) for receiving a potential difference;

said drive means (100) being arranged for controlling the potential difference of each picture element (2) to be a grey scale potential difference for enabling the particles (6) to occupy the position corresponding to the image information,

- 10 said drive means (100) being further arranged for application of the grey scale potential difference for at least a subset of all drive waveforms for setting a picture element from a preceding optical state to a grey scale in two or more pulses which change the optical state of the system separated by a non-zero time interval.